

**REMARKS****1. Objection to claims 1, 4, and 5 for informalities:**

5 The five typographical/electronic-filing errors identified by the examiner have been corrected.

**2. Rejection of claims 1-3 and 8-11 under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (APA) in view of Choi et al. (US 6,259,392):**

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**Regarding claim 1:**

The applicant contends that the combination of APA and Choi is without fair motivation.

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The examiner has stated that the motivation for the combination is "in order to provide multiplying DACs and converting methods that can include capacitor errors." However, the applicant asserts that this combination counteracts how Choi teaches to reduce error. Since Choi's benefits would be lost and since the APA does not address reducing capacitor error, one of ordinary skill in the art would not be motivated to make the combination.

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Regarding Choi's embodiment of Fig.7, in col. 7, line 50 – col. 8, line 17, Choi shows how proper control of switches S31-S38 minimizes overall capacitor error, an assertion supported by equations (9), (10), and (11). Clearly, for reduction of capacitor error Choi depends on switches S31-S38 and the corresponding switching scheme described. However, the combination made by the examiner does not include the switches S31-S38. Moreover, the examiner has stated that the limitation of "the plurality of digital reference signals comprising digital signals corresponding to the digital code and a first calibration signal" (claim 1) is taught in the paragraph bridging cols. 5 and 6 and col. 6 lines 10-23. However, this section of Choi also describes the functionality of the switches S31-S38, and yet the examiner has not pointed out how

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these switches deliver a calibration signal nor what Choi considers to be a calibration signal. Clearly, one of ordinary skill in the art would be directed toward the switches S31-S38 and to how Choi describes their use to reduce capacitor error. In summary, the portion of Choi applied to the APA is not congruent with the error reduction that

5 Choi teaches.

Regarding the APA, simply replacing the single second capacitor Cs in the APA with Choi's plurality C1-C8 does nothing more than create an equivalent capacitance. The APA does not teach or suggest a way to reduce capacitor error with one, two, or a

10 plurality of capacitors.

Therefore, the combination made by the examiner does not appear to affect capacitor error which is the stated motivation of the combination. By combining the cited arts this way, any benefit from Choi is lost and even acted against. Hence the applicant

15 argues that such a combination lacks fair motivation.

Reconsideration of claims 1-3 is requested. Claims 2-3 are dependent and should be allowed if the corresponding independent claims are found allowable.

20 **Regarding claim 8:**

The examiner has not specifically addressed the steps of claim 8 in the text of the rejection. The applicant assumes that the basis of the rejection of claim 8 is the same as that for claims 1-3.

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As described above regarding claim 1, the cited art does not teach or suggest a first calibration signal, as in claim 8:

“applying a first calibration signal to a second capacitance of the

30 MDAC stage during a hold phase;”

Even if the examiner regards Vreg, GND, or AI2 from Choi's Fig.7 as a first

calibration signal, the cited art still does not teach a second calibration signal nor does it teach a step of combining calibration signals, as in claim 8:

5 "combining output of the last MDAC stage of the series with a second calibration signal corresponding to the first calibration signal; and"

Finally, the cited art does not teach or suggest a filtering step as in claim 8:

10 "filtering the second calibration signal from the digital output of the pipelined analog-to-digital converter."

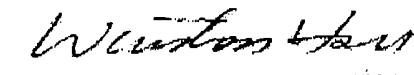
The above quotations from claim 8 are just several examples of where the text of the rejection to claims 1-3 does not seem to match limitations of claim 8. In addition, it can be seen that the method of claim 8 is significantly different from the device of claim 1 in that it contains limitations corresponding to device limitations found in claim 4, for example.

Reconsideration of claims 8-11 is requested. Claims 9-11 are dependent and should be allowed if the corresponding independent claims are found allowable.

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Sincerely,

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